

REMARKS

Reconsideration and allowance of this application are respectfully requested. Currently, claims 1-27 are pending in this application.

Rejection Under 35 U.S.C. §102:

Claims 1-11 were rejected under 35 U.S.C. §102 as allegedly being anticipated by Kawase et al. (U.S. '724, hereinafter "Kawase"). Applicant respectfully traverses this rejection.

Anticipation under Section 102 of the Patent Act requires that a prior art reference disclose every claim element of the claimed invention. See, e.g., *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1574 (Fed. Cir. 1986). Kawase fails to disclose every claim element of the claimed invention. For example, Kawase fails to disclose "a decision on completion of activation of said first cell and a decision on completion of activation of said second cell are separately made, after starting energization of the gas concentration sensor including the first and second cells, and the decision on completion of activation of said second cell is made after the activation of the first cell is completed."

Example exemplary embodiments of the invention of claim 1 relate to a gas concentration detecting apparatus which comprises a first cell (e.g., a pump cell) and a second cell. The first cell detects a concentration of oxygen in a measuring gas, and the second cell detects a concentration of a specific gas in the measuring gas. An activation decision for the first and second cells is separately (individually) made. (See page 3, lines 26-29 of the specification). The decision on the activation completion of the first cell can be made without waiting for the activation completion of the second cell. (See page 3, line 29-Page 4, line 2 of the specification). These features of the present example embodiments provide advantages such as the normal

operating condition for detecting the concentration of oxygen by the first cell becoming attainable in earlier stages. (See page 4, lines 2-3 of the specification).

Kawase's gas concentration sensing apparatus uses a gas concentration sensor and comprises a first cell, a second cell, and a heater. (See col. 2, lines 52-65.) The first cell discharges excessive oxygen contained in a measuring gas in accordance with an applied voltage and produces a current responsive to an oxygen concentration. The second cell produces a current responsive to a concentration of a specific component involved in the residual measuring gas after the excessive oxygen is discharged. The heater heats the first cell and the second cell. Kawase's gas concentration sensing apparatus detects an internal resistance of the second cell. Electric power supplied to the heater is controlled in accordance with an internal resistance value of the second cell. (See col. 2, line 66-col. 3, line 3.)

Kawase thus discloses a method for controlling the heater for heating the first cell and the second cell. However, Kawase fails to teach or suggest an activation decision for a first cell and a second cell being individually made, and the decision for activation completion of the first cell being made without waiting for the activation completion of the second cell.

Accordingly, Applicant respectfully requests that the rejection of claims 1-11 under 35 U.S.C. §102 be withdrawn.

New Claims:

New claims 12-27 have been added to provide additional protection for the invention. Independent claim 12 requires, *inter alia*, "judging whether or not an activation of the first cell of the gas concentration sensor is completed after the gas concentration sensor is started to be energized; and judging whether or not an activation of the second cell of the gas concentration sensor is completed, only if the activation of the first cell of the gas concentration sensor is

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completed.” New independent claim 20 requires similar, but not necessarily identical, features.
Accordingly, Applicant submits that new claims 12-27 are allowable.

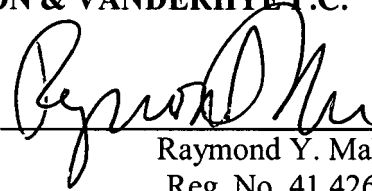
Conclusion:

Applicant believes that this entire application is in condition for allowance and respectfully requests a notice to this effect. If the Examiner has any questions or believes that an interview would further prosecution of this application, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:

A handwritten signature in dark ink, appearing to read 'Raymond Y. Mah', is written over a horizontal line.

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